



Implementing Regional Sediment Management: Opportunities and Impediments

*A Summary of Small Group Discussions from a
Joint U.S. Army Corps of Engineers – Coastal States Organization Workshop*
Portsmouth, New Hampshire
October 22, 2003

Workshop Purposes: (1) To identify opportunities for and impediments to implementing regional approaches to sediment management, and (2) to provide an opportunity for Corps staff and state coastal staff to meet and discuss information, experiences, and ideas.

Background: The U.S. Army Corps of Engineers (Corps) is implementing regional sediment management (RSM) as a new approach to managing sand and other sediments. RSM demonstration initiatives have shown knowledge and technologies, and shown promise for cost savings and other benefits. In order to develop a strategy for broader implementation beyond demonstration efforts, the Corps is seeking stakeholder perspectives and ideas regarding regional approaches to sand, beach, and sediment management, and opportunities to pursue collaborative efforts with the states and other stakeholders. This joint Coastal States Organization (CSO)-Corps Workshop held in concert with the fall CSO meeting and the Corps RSM demo program workshop, provided the opportunity to initiate these discussions. The workshop was sponsored jointly by the Corps RSM Demonstration Program (<http://www.wes.army.mil/rsm/RSM-NDP/demos.html>), and the National Shoreline Management Study (NSMS) (<http://www.iwr.usace.army.mil/NSMS/index.html>).

Workshop Set-up: Approximately 50 people participated, including: coastal states and islands territories, Corps districts, divisions, and Headquarters, the Corps Engineering Research Development Center and the Corps Institute for Water Resources (IWR). The participants met in seven groups according to geographic region (see table below). Hawaii and Island Territories constituted one of the groups. This organization allowed opportunity for small group discussion and presented a chance for the participants to meet other individuals working in their regions. The day before the workshop, participants were provided the material in Attachment A to help provide background and generate ideas for the workshop.

Discussion Groups		
Group #	State	Corps Office
1	Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island	New England District, North Atlantic Division
2	New York, New Jersey, Delaware, Maryland, Virginia	New York, Philadelphia & Baltimore Districts
3	North Carolina, South Carolina, Georgia, Florida (1)	Wilmington, Savannah & Jacksonville Districts, South Atlantic Division
4	Florida (2), Alabama, Mississippi, Louisiana, Texas	Mobile & Galveston Districts
5	Washington, Oregon, California, Alaska	Portland & Los Angeles Districts
6	Hawaii, American Samoa, Commonwealth N. Marianas, Guam, Virgin Islands, Puerto Rico	Honolulu District
7	Pennsylvania, Michigan, Wisconsin, New York, Ohio, Indiana	Detroit & Buffalo Districts

Workshop Process: After a brief review of the RSM and discussion of the workshop purposes (Lynn Martin, IWR), the facilitator (Erika Hieber, IWR) outlined the process for the group discussion exercise, which is summarized below:

- First, participants individually wrote down opportunities for applying RSM. That information was used in their small group discussions of RSM opportunities. After discussion, each group listed 2-3 “top priority” RSM opportunities.
- Next, the participants individually wrote down impediments to implementing RSM. That information was used for their small group discussion of impediments. After discussion, each group determined their “top impediments” to implementing RSM.
- Last, each group’s spokesperson reported back to the large group on their top opportunities and impediments associated with applying RSM.

Workshop Observations: The participants appeared to readily engage in the conversations within their small groups, exchanging information and perspectives. There was not always total agreement within a group on the opportunities and impediments. Fundamental questions such as “What is regional sediment management?”, “Is it considered a program?”, and “Who is responsible for implementation?” were raised and discussed in some of the groups. These broad questions were important to address and get some baseline understanding of, if not agreement on, before the discussions of opportunities and impediments could continue.

There was not ample time for the large group to discuss the opportunities and impediments that each small group presented, or to explore the similarities and differences in opportunities and impediments among the regions. The importance of and need for inventories of sand sources and understanding of the sediment budget were identified in several regional groups. Nearly all groups identified funding issues among the impediments to implementing RSM, however several noted that ongoing multi-agency initiatives could serve to foster regional approaches to sediment management, including efforts to better leverage funding. A number of groups identified specific locations in which to pursue RSM, along with potential management measures or approaches that could be pursued.

Overall, the participants seemed to have found the exercise useful, and many noted that they enjoyed having the opportunity to meet and talk with others in their region. Some participants expressed interest in holding similar workshops regionally to discuss issues and opportunities in more detail.

RSM Opportunities and Impediments: Below is a summary of opportunities for and impediments to implementing the RSM approach. This summary was prepared by IWR based on review of the group report back and brainstorming information.

Opportunities:

- **Coordination and Collaboration.**
 - Some regions have existing activities and relationships upon which to build coordination and collaboration for applying the RSM approach.
 - Ongoing interstate initiatives could be useful
 - Re-occurring meetings may be useful forums for RSM discussion
 - Holding regional RSM workshops could be helpful
 - Leveraging local, state and federal dollars for beneficial uses of sand/sediment/ material, as well as enhancing the data and information sharing regarding sediment budgets and coastal processes
 - Integrating budget planning could help in RSM implementation
 - Local, state, federal outreach could be coordinated
 - Establishment of integrated decision-making frameworks would be useful
 - Working jointly to get Congressional support and funding

- **Data and information management**
 - Inventory sand sources and needs for region; include volume available
 - Jointly inventory and prioritize potential sediment management sites
 - Data collection, analysis, transfer / sharing enhancement through regional approach
 - Knowledge of sediment budget / process enhancement through regional approach
 - Sediment budget tools (models/GIS/SBAS) to identify / improve sediment management
 - Off-shore sand mining for beach nourishment (mapping of sand resources)
 - More encompassing/comprehensive study efforts will be useful
- **Improving the science and knowledgebase for RSM** - knowledge of the system and management options
 - Collaborative research; sharing results and information
 - Regional monitoring (sand movement, biological needs and effects)
 - Development of dredging technology – new needs and to achieve lower costs
- **Locations and management measures** - Some groups identified specific projects or locations in which to pursue RSM activities in their region. They also identified potential management measures or approaches:
 - Sand by-passing and back-passing – getting sand from accreting areas to eroded areas
 - Designing structures with sand system; better / improved project designs
 - Beneficial uses of sediments – riverside and coastal – sand and fine grain
 - e.g., beach and back bay habitat restoration opportunities
 - Island creation
 - Combine habitat restoration project and beach nourishment
 - Systematic use of borrow areas
 - Keeping the sand in the system (may require structural solutions – don't rule out)
 - Redistributing beach quality sand from stream mouths and accreted beaches onto eroding beaches
 - Improve land use practices and prevent contaminants from entering system
 - Smarter (more effective) dredging
 - Joint offshore disposal
 - Nourish selected beaches within littoral cells that are good candidates
 - Consider creating submerged aquatic vegetation beds and oyster reefs offshore of sand nourishment projects to reduce wave energy and minimize future nourishment needs
 - Nearshore placement as stockpile/borrow area for future projects – not presently economically feasible to place onshore, but may be in future if stockpile is close to future project area

Impediments:

- **Funding – an issue identified in every group**
 - Lack of funds to pay added costs of using sand smartly
 - Congress funds without an RSM strategy
- **Assessing benefits**
 - Need to explain choice of what may initially be a more costly approach to the public
 - Benefit assessment needs to be multi-purpose

- **Science and engineering**
 - Some regions lack sufficient data/information to do RSM
 - Lack of baseline data to develop sediment budgets
 - No current identification of sand management options
 - Need better identification of disposal/placement locations
 - Engineering and biological constraints
 - Concerns about environmental impacts
 - Biological knowledge/capacity lacking
 - Sand is a scarce resource
 - There is insufficient availability for beaches in area and other uses
 - Competition from sand mining for commercial use; landfill capping
- **Processes/policies/authorities differences** - (federal, state, local)
 - Political boundaries and jurisdictional conflicts; Political issues associated with multi-jurisdictional projects
 - Limits on ability to look at projects regionally
 - Limits on ability to implement regional approaches
 - Interstate transport / use of material
 - Conflicting state laws
 - Conflicting policies and priorities
 - e.g., conflicting sand management goals and water quality vs. beach nourishment
 - Federal Standard
- **Communication/coordination** needed:
 - Permitting/ regulations - Endangered Species Act, Coastal Zone Management Act
 - Earlier coordination could help expedite and improve decisions
 - Landowners/stakeholders – affect sediment system and can impede proposed RSM management actions;
 - Need for public outreach because local land use practices adversely impact beaches and reefs
 - Real estate and associated easement issues can impede RSM management measures
- **Culture**
 - Congress supports local interests, rather than regional
 - Agency and public distrust needs to be overcome
 - Public is currently uninformed about RSM
 - RSM Concept: Lack of understanding of what RSM is and how it can be beneficial
 - Authorities and policies
 - Not used to working with some stakeholders and over coming the status quo is always a challenge
- **Dredging equipment limitations**
 - Some areas need smaller hydraulic dredges for placement of material
 - Corps dredges; industry dredges
 - Aligning project dredges with sediment fill needs in a cost effective way

Questions or comments about this workshop can be directed to: Ms. Lynn R. Martin, U.S. Army Corps of Engineers Institute for Water Resources, 703-428-8065, lynn.r.martin@usace.army.mil, or Ms. Jena Carter, Coastal States Organization, 202-508-3860.

**U.S. Army Corps of Engineers - Coastal States Organization
Regional Sediment Management Workshop
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*Courtesy of Becky Lizama
CNMI, Coastal Resources Management

Attachment A – Read Ahead for Small Group Discussions

Joint State-Corps RSM Discussions October 21 and 22, 2003

The Corps is eager to obtain stakeholder input to the Regional Sediment Management (RSM) initiatives in order to help advance the RSM approach beyond the demonstration efforts. We know that our stakeholders and partners like the states are important to implementing RSM. To this end, we appreciate the CSO providing us an opportunity to meet w/state coastal staff at this meeting. Two sessions have been organized for this - one Tuesday afternoon, and one Wednesday morning.

- **Corps will provide** and update on the NSMS, and overview of the RSM demo efforts across the nation, and of the Mobile demo in particular (**Tuesday**)
- **State delegates** are asked to think about RSM opportunities and impediments in their states or regions. We will talk about these ideas in a facilitated discussion session on **Wednesday a.m.** using a combination of breakout group and large group discussions.

RSM Opportunities – What are opportunities to apply the RSM approach in your state or Region?

- Think about the various actions pertaining to sand and sediment in your area (dredging channels, beach nourishment, mining for construction sand and gravel) –
 - Might these or other sediment-related activities benefit from a regional approach and strategy?
- Do you see the potential for RSM to be beneficial to your program? If so, what opportunities do you see for applying RSM in your state or region?
- Do you have questions about RSM? If so, what are they?

Impediments to RSM – If you believe it is a good idea, why don't we do more of it now?

RSM Stakeholders – Who are the stakeholders that you think are important to involve in applying RSM in your region?

- How might they view RSM?

Request for References: Are you aware of any reports, studies or other references on regional movement of sand or other sediments in your area that might be useful to RSM or the NSMS? If so, please list:

- ...
- ...